

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

In re: Federal Mogul Global, Inc., *et al.*,

(Bankruptcy Case No. 01-10578 (RTL))

Debtors.

THE OFFICIAL COMMITTEE OF
ASBESTOS CLAIMANTS and
ERIC D. GREEN, as the
LEGAL REPRESENTATIVE FOR
FUTURE ASBESTOS CLAIMANTS.

Plaintiffs,

V.

Civil Action No. 05-59 JHR

ASBESTOS PROPERTY
DAMAGE COMMITTEE,

Defendant.

REBUTTAL REPORT OF MARK A. PETERSON

PLEASE TAKE NOTICE that the attached rebuttal report of Mark A. Peterson, dated May 13, 2005, is filed on behalf of Plaintiffs the Official Committee of Asbestos Claimants (the “ACC”) and the legal representative for future asbestos personal injury and wrongful death claimants (the “Futures Representative”), in anticipation of the Asbestos Claims Estimation Hearing (the “Hearing”) scheduled to commence June 14, 2005. *See* Case Management Order [D.I. 17.].

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May 13, 2005

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In Re: Turner & Newall

Rebuttal to Expert Witness Report of Dr. Robin Cantor

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1. Introduction

Dr. Robin A. Cantor's November 30, 2004 Expert Report and April 26, 2005 Supplemental Report for the Committee of Asbestos Property Damage Claimants forecast future asbestos liabilities for Turner & Newall (T&N) that depart sharply from the company's experience up to the time of its bankruptcy petition. Dr. Cantor forecasts that if Federal Mogul had not filed for bankruptcy protection on October 1, 2001, T&N would have seen a series of implausible changes that would have immediately and drastically reduced its liability. Dr. Cantor forecasts that:

- The number of claims filed against T&N would have been cut in half immediately. Instead of T&N's annualized rate of 54,000 compensable claim filings during 2001, T&N would receive only 23,706 compensable new claims in 2002.
- T&N annual claim filings would have continued to decrease from 2003 onward. Rather than the significant and steady annual increases in claim filings that T&N had experienced through 2001, the trend would have turned to uninterrupted annual decreases.
- T&N would have settled claims for far less than before the bankruptcy, particularly for mesothelioma, the most expensive and serious claims. Dr. Cantor asserts that immediately after the petition date T&N could have settled then-pending mesothelioma claims for \$68,866 each, although in 2001 it had paid more than twice as much, an average of \$159,434 per claim for mesothelioma claims settled and paid in 2001.

The sharp improvements in T&N's fortunes that Dr. Cantor foresees are not consistent with the actual state of asbestos litigation in and after October 2001: T&N's exposure to asbestos liabilities was worsening, not improving. Dr. Cantor gives no reasons for the unprecedented reductions in T&N's asbestos liabilities that she foresees. Rather, Dr. Cantor's forecast changes result purely from methodology: her unusual and flawed forecasting methods. First, Dr. Cantor makes a series of assumptions that lead her to discard and ignore one third of the claims that T&N has received and paid in recent years, forecasting T&N's future liabilities as if these actual claims had never been filed or paid. Second, in calculating values for these claims, Dr. Cantor ignores increases in T&N's most recent settlements and bases her values on the far lower settlement amounts that T&N had agreed to pay in earlier years before settlements reached their current levels.

I comment below on how Dr. Cantor's forecasting methods result in forecasts that are so contrary to T&N's actual claims experience. In Section 2, I discuss her treatment of what she calls "compensable claims," identifying two sources of claims removal: rejection of claims based on T&N's historic percentage rejected without payment (which I had also incorporated), and elimination of claims that result from her adjustments of filing years to death years in implementing her methodological reliance on death year (which I reject as unnecessary, methodologically flawed, and which produces results that are downwardly biased and implausible). I discuss in Section 3 why the latter source of claims removal is both biased and unnecessary. In Section 4, I discuss her inappropriate treatment of settlement values. Finally, in Section 5, I identify and discuss other errors and failures of understanding that I saw in the report.

2. Dr. Cantor's "Compensable Claims"

In some ways, Dr. Cantor's forecasting method is similar to the standard approach that I use. We both use epidemiological models of the number of persons who die annually from asbestos-related cancers. We calibrate the epidemiological forecasts to counts of T&N claims during a recent calibration period, deriving claiming rates that we use to forecast claims in future years. We both use some form of historic T&N ratios of nonmalignant to cancer claims in order to forecast future nonmalignant claims. But we implement these methods very differently. I use a standard forecasting approach and my forecasts are close to and continuous with T&N's experience prior to its bankruptcy. Dr. Cantor's forecasting approach is anything but standard. She places heavy reliance on a variable--death year--that is often unobserved or has occurred for victims whose claims have not yet been filed, and her forecasts show a remarkable discontinuity from T&N's own recent history.

Dr. Cantor states that she bases her forecasts on "compensability rates" intended to estimate the number of compensable claims that will arise in each future year. If this were an accurate description of Dr. Cantor's approach, her forecasts and mine would not differ by any significant amount. As one step in her forecast approach, Dr. Cantor removes non-compensable claims, multiplying T&N's actual claims by her calculation of the historic rate at which T&N closed cases without compensation, as do I (Cantor Exhibit 21, p. 34). Dr. Cantor removes non-compensable claims before she calculates her compensability rates, while I forecast all claims that will be filed against T&N and then subtract non-compensable claims for each disease. The effect is the same.

Indeed if "compensability rate," as used by Dr. Cantor, meant the percentage of claims that would likely be compensated based on T&N's historic dismissal rate (i.e. 1 - percentage of historic claims dismissed), Dr. Cantor's forecasts of future compensable claims would not differ significantly from my own because our respective calculations of the historic percentage of claims that receive compensation are very similar, as shown in Table 1.

Table 1: Historic Percent of T&N Claims Receiving Payment

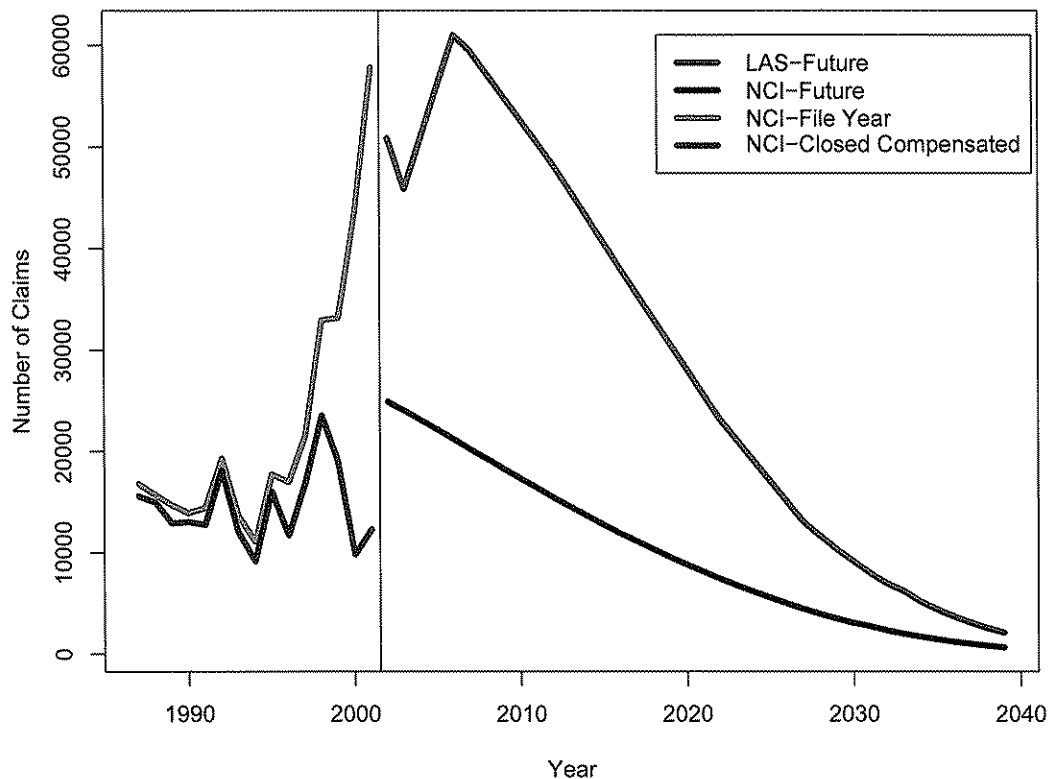
Disease	Percent Paid	
	Peterson	Cantor
Mesothelioma	86.6%	90.2%
Lung Cancer	91.4	92.4
Other Cancer	94.5	94.0
Asbestosis	94.3	95.5
Pleural	94.3	97.1

Notes: Peterson entries taken from Table 11 of Peterson November 2004 report; asbestosis and pleural were collapsed there to the single category "nonmalignant" and percent paid was computed for 2000-2001 settlements. Cantor entries taken from Exhibit 21, page 34, of Cantor Supplemental Report.

Instead Dr. Cantor's "compensability rates" remove far more claims than those that she calculates as non-compensable from T&N's history. Figure 1, one of Dr. Cantor's exhibits for the originally scheduled December 2004 hearing in this case, compares her forecast of future claim filings to mine (right side of the exhibit, after 2001) and T&N's past claims that we each used to calculate our rates for forecasting future claims (left side of the exhibit, through 2001). The data

that we each used to make our forecasts are, in green, T&N's past filings that I used for calculating propensities to sue and, in purple, Dr. Cantor's counts of "closed compensated" claims that she uses in calculating her "compensability rates."

Figure 1: Dr. Cantor's Filings Forecast Shows a Remarkable Discontinuity from T&N's Own Recent History

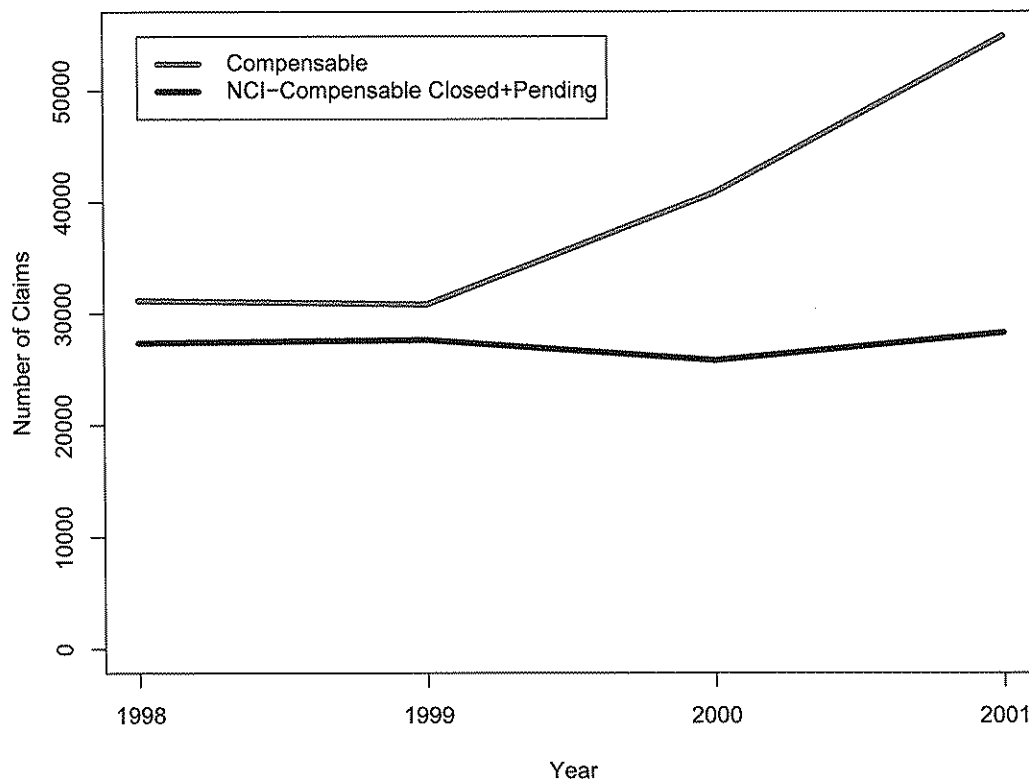


Our two forecasts have very different relationships to T&N's actual past claims experience (green line). While my forecasts ("LAS-Future" in red) are consistent and continuous with the past history of claims filings against T&N, Dr. Cantor's are not (NCI-Future in blue), falling far below T&N's actual experience in recent years. Instead, Dr. Cantor's forecasts are close to a line that she described as NCI-Closed Compensated (NCI for Navigant Consulting Incorporated), suggesting that differences between her and my forecasts reflect only issues dealing with the compensability of claims. But we do not differ about the percentage of claims that will likely be compensated, and differences in our two forecasts have nothing to do with that issue.

I have prepared Figure 2 to demonstrate that Dr. Cantor's forecast method, which she asserts is based on her counts of "compensated claims," in fact is based on eliminating many more claims that T&N had received and compensated historically. Her description obscures that her forecasts do much more than adjust for compensability. Figure 2, focuses on the left part of Figure 1. I present each of two curves of pre-bankruptcy claims that Dr. Cantor and I use to forecast future claims to show that how Dr. Cantor bases her forecasts on something other than adjustments for compensability. The top line, in green, shows the annual number of compensable claims filed against T&N based on Dr. Cantor's numbers. For each year I took the number of filings and then subtracted claims that would be not compensated, using Dr. Cantor's calculations of the rejection rates for each disease. This line, representing historic annual counts of filings of compensable

claims, is the proper basis for forecasting future compensable claim filings, the goal of both Dr. Cantor's and my forecast methods.

Figure 2: Dr. Cantor's Compensable Claim Counts During the Calibration Period Are Not Consistent with T&N's History



But Dr. Cantor does not use these counts of compensable claims in forecasting future claims. Rather, the bottom line in Figure 2, shows the number of past T&N claims that Dr. Cantor uses to calculate her "compensability rates," the basis for her forecast of future claims. This line is the sum of Dr. Cantor's counts of "Compensable Pending Claims" and her counts of "Compensated Closed Claims" which she states must be added in determining compensability rates (Cantor, p. 35), multiplied by 13.1 which adds the counts of nonmalignant claims using Dr. Cantor's methods (pp. 26-28).¹ As Figure 2 shows, the purple line, representing counts of "compensated" T&N claims that Dr. Cantor uses to calculate her "compensability rates" and to forecast her future claims, is much lower than her counts of historically compensated claims, the green line, and increasingly divergent in the most recent years. This difference demonstrates that Dr. Cantor's forecasts are based on removing many more than just non-compensable claims as represented by the green line in Figure 2. Dr. Cantor does not forecast the number of T&N claims that would be compensated, but forecasts a much smaller number of future claims. These missing claims and the consequent reduction in her forecast result from Dr. Cantor's flawed analyses and assumptions that she uses to address her concern about a mismatch of filing years and death years, which I

1. Note that this line differs from Dr. Cantor's "NCI-Closed Compensated" in Figure 1, which was incomplete, not including the counts of "Compensable Pending Claims" that she also uses in forecasting future claims (Cantor, p. 35)

discuss in Section 3 below.

Dr. Cantor's and my implementation of our forecasting methods differ in other ways that explain why her forecasts are far lower than mine and far lower than T&N's actual claims experience. While my forecasts are based on the peer-reviewed Nicholson, Perkel and Selikoff epidemiological models whose accuracy has been tested and confirmed by twenty years of empirical data, Dr. Cantor bases hers on her own unreviewed, undocumented, and untested epidemiological forecasts. I derive my future claim filing rates from T&N's experience in the last two years, while Dr. Cantor uses a four year calibration including 1998 and 1999 when T&N's claims filings were lower.

But what differs most for the forecasts is the number of cancer claims that we use to derive the future rates of claiming for each cancer--both of our forecasts of future claims are directly proportional to this number. Dr. Cantor bases her forecasts on 7,322 so-called "compensable" cancer claims with death years between 1998 and 2001 (Cantor, Exhibits 22 and 23). But when we look to T&N's data to calculate compensable cancer filings in those years, adding (1) cancer claims that were filed in those years and that have been closed with payment to (2) counts of still pending cancer claims filed in those years that were likely to be compensated based on T&N's historical experience, we count 10,679 compensable cancer claims filed in the 1998-2001 filing range, not Dr. Cantor's 7,322. Table 2 compares these counts of cancer claims. Dr. Cantor's methods eliminate 32 percent of compensable cancer claims, which in turn means 32 percent fewer nonmalignant claims based on Dr. Cantor's method of forecasting compensable nonmalignant claims. This difference is substantial--her methods have reduced her estimate of both cancer and nonmalignant claims to 68 percent of what have historically been paid.

Table 2: Dr. Cantor Eliminates 32 Percent of Compensable Cancer Claims Filed During Her 1998-2001 Calibration Period

Disease	Number of Claims		Cantor as Percent of Actual Count
	Cantor	Actual Count	
Meso	2,628	3,597	73%
Lung	3,300	5,098	65
Othc	1,303	1,984	66
Total	7,232	10,679	68%

Notes: Cantor claims derived from Cantor Exhibits 22 and 23. Actual counts obtained by adding cancer filings closed with payment to counts of pending cancer claims adjusted by T&N compensation rates.

Dr. Cantor's elimination of one third of claims results from implementation of her flawed death-year forecasting method, as I discuss in the next section.

3. Treatment of Death Year

Dr. Cantor's elimination of a third of T&N's compensated claims starts with her simple observation that the propensity to sue calculations used in the standard forecasting method, which I use for my T&N forecasts, count claims filed in a year in the numerator and deaths during the same year in the denominator. Dr. Cantor posits that this is a mismatch that will result in forecasting errors. To calculate her version of propensities to sue, which she labels "compensability rates," Dr. Cantor adjusts her numerator, requiring several analytical steps and assumptions each of which have clear flaws.

3.1. The Filing Year-Death Year Issue

Dr. Cantor's newly discovered problem is not a problem and it is not new. This issue has been considered and addressed for at least 15 years, as long as I have made forecasts of asbestos liabilities. For example, I discussed and analyzed this issue more than five years ago in my testimony in the Fuller Austin Settlement Trust insurance litigation (see, Fuller Austin Report, discussion of issue at p.9 and sensitivity analyses of issue on pp. 14-15).

Dr. Cantor's problem is not real, because the year that a claimant files a cancer claim is the best estimate of the year of the claimant's death. We use filing year in calculating propensities to sue because it is the best "reference" for the year that claimants die, in effect using year of death in both the numerator and the denominator. Figure 3 demonstrates this from T&N data. The Figure displays the comparison of filing and death years in T&N's data for mesothelioma claimants (showing time between filings and death for mesothelioma claims from Table 3, below). Most often, claimants' death year is the same as filing year. But importantly, when filing year and death year differ, these differences are approximately symmetrical. This approximate symmetry also occurs for lung cancer claims and claims of other cancers. Because death year and filing year are most often the same and the differences in these dates are distributed close to symmetrically, by using filings year in the denominator of calculation we get a conservative and minimally biased calculation of T&N's past propensities to sue.

Figure 3: Symmetry in the Time from Filing to Death Assures Proximity of Filing and Death Year Incidence Curves (Mesothelioma Claims)

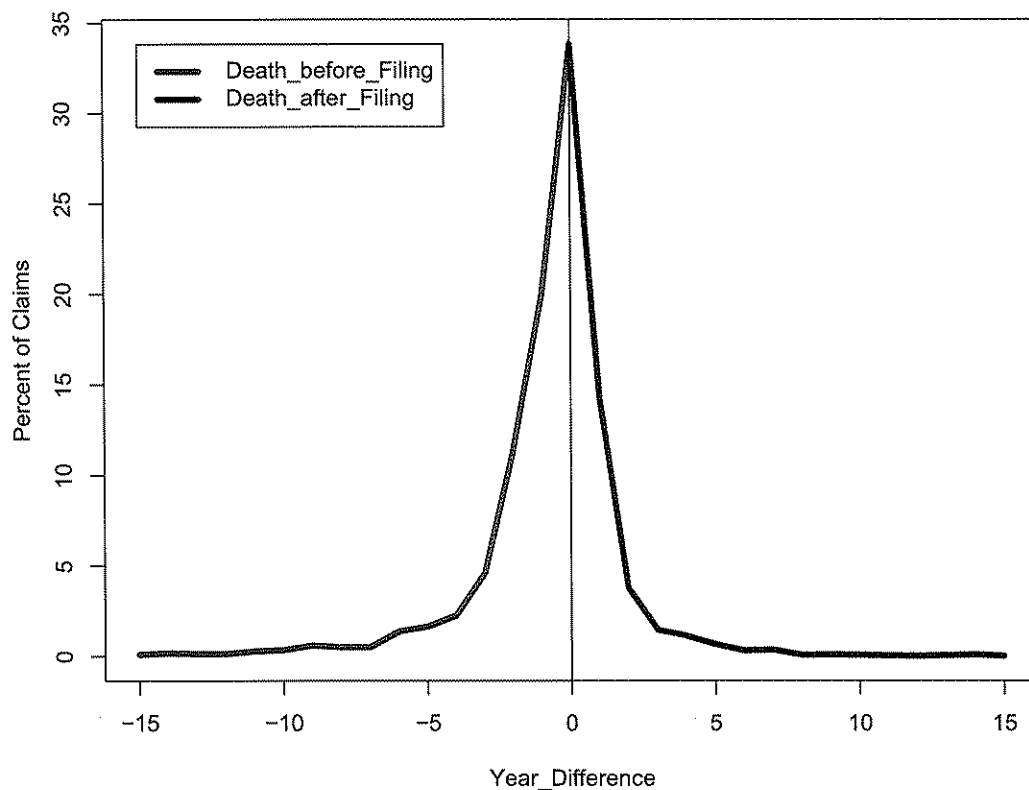


Table 3 shows the comparison of dates of filing and death for each type of cancer among T&N claimants for which we have both dates. Filing year is clearly the best estimate of cancer claimants year of death; deaths of cancer claimants occur most often in the year the claim is filed. The table also shows the modest asymmetries in which somewhat more cancer victims died before claims were filed than after.

Table 3: Differences Between Filing Year and Death Year for T&N Cases

Number of Years	Mesothelioma Claims			Lung Cancer Claims			Other Cancer Claims		
	Filed After Death	Filed Same Year	Filed Before Death	Filed After Death	Filed Same Year	Filed Before Death	Filed After Death	Filed Same Year	Filed Before Death
0		3,075			2,842			441	
1	1,817		1,300	2,664		1,643	445		304
2	1,033		339	2,019		759	394		214
3	417		130	827		491	251		135
4	205		102	373		304	103		109
5	149		60	262		221	39		81
6	125		28	195		129	41		53
7	46		31	124		67	37		29
8	46		6	85		52	14		22
9	53		7	63		33	14		11
10	31		6	52		18	8		4
11	25		3	43		9	4		2
12	11		0	29		2	6		2
13	11		4	30		5	7		1
14	15		7	23		5	4		0
15	8		0	21		2	1		1

Note: Death year taken from T&N data when available, Manville otherwise.

We can easily examine the effects of this modest asymmetry by adding one to the Nicholson death year so that we now compare T&N filings in a given year to Nicholson's forecast of deaths for the previous year, moving in the direction to correct the slight bias. This offset adjustment increases forecasts of future claims and liability by five percent over our original calculations reported in my November Expert Report that equated death and filing year. But this offset introduces more bias. If we assume that cancer claims were filed the year after death (the effect of the offset), the resulting distribution of filing year around death year+1 is less symmetrical than our original assumption that death year equals filing year. In short, we get the most appropriate forecasts by assuming that death year is the same as filing year, the assumption of my November 2004 Expert Report. Use of any other assumption will not be as good and the only other assumption that comes close to representing the relative timing of filings and deaths (deaths precede filings by one year) results in only slight change to our forecasts, a change that is not conservative because it would increase our liability forecast. The forecasts from my Expert Report provide the best available basis for calculating propensities to sue and for forecasting future claims even though the numerator is filings and the denominator is deaths.

3.2. Deriving Forecasts from a Nicholson T&N Filing Year Model

Because filing year is the best estimate of death year, calculation of propensities to sue using counts of claims in the numerator and counts of deaths in the denominator is not the problem that Dr. Cantor claims and there is no need to change either the numerator or the denominator in the propensity to sue calculation. In fact because filing year as a good and minimally biased estimate of death year, forecasts would change little if we did change the terms of the propensity to sue calculation so that they represent the same counts.

I show in this section how small that change is for T&N forecasts, when we use unbiased methods to equate the numerator and denominator. Rather than trying to change the numerator

from filing counts to death counts as Dr. Cantor attempts (an approach that inevitably involves problems of circularity that I discuss below), I changed the denominator: adjusting Nicholson's forecasts so that they become counts of filing in each year, not deaths in each year as Nicholson had forecast. I based this adjustment on the data shown in Table 3 comparing dates of filing and death among T&N claimants, redistributing the Nicholson counts in each year using the distributions in Table 3 to convert Nicholson's death year forecasts to filing year forecasts.

The steps of this analysis can be seen in an excerpt from this redistribution shown in Table 4. Nicholson forecasts the number of deaths (shown in the second column in Table 4) in each death year (first column), for example, 3,048 forecast mesothelioma deaths in 2003. Applying the filing-death year distribution from Table 3 we calculated that if claims were filed for each of these year 2003 deaths, then 1,027 claims would be filed in 2003, 434 in 2002, 111 in 2001 and so on across the 2003 row in Table 4. (For some of the mesothelioma victims who died in 2003, claims would have been filed before 2001 or after 2006, but for convenience, we do not show them here.) We similarly spread the annual mesothelioma deaths to filing years for every other death year. Table 4 illustrates the spreading of deaths to filing year for 2001 through 2005. After we have spread death counts to filing years for every death year (including those not shown in Table 4), we then sum the numbers in each column. (Again for convenience, we do not show the entries for death years before 2001 or after 2005, although they are counted in the column totals.) These column totals represent the expected counts of filings for each year among persons forecast by Nicholson to die from mesothelioma.

By comparing the number of persons who Nicholson forecasts will die each year (Table 4, column 2) with the number who will file in the same year (the last row of Table 4) we see that the two totals are almost identical in each year. The total numbers of filings in each year which we have derived are almost identical to the original Nicholson forecasts of annual deaths for that same year. This occurs because filing year is a good and minimally biased estimate of death year.

**Table 4: Redistribution of Nicholson Mesothelioma Deaths:
From Death Year to Filing Year**

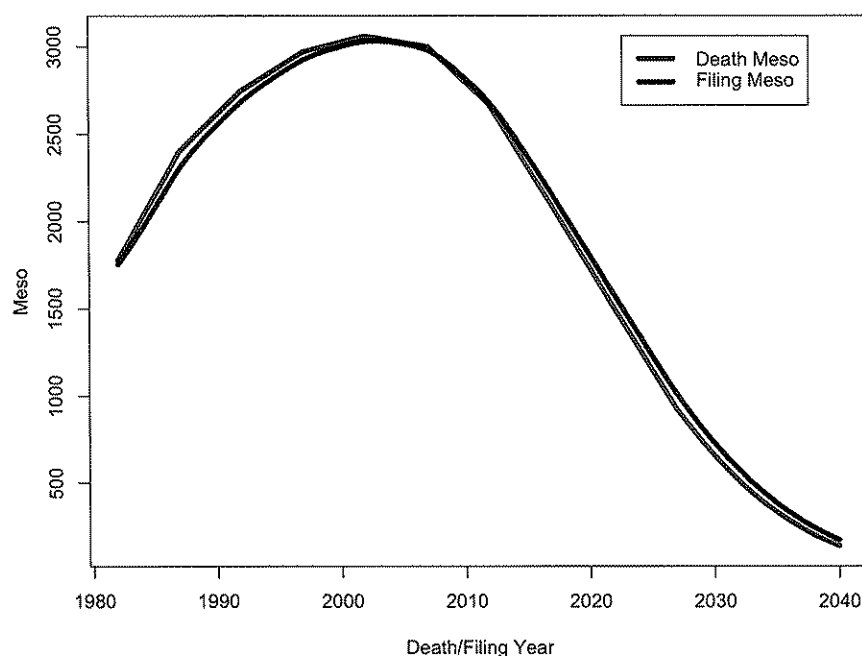
Death Year	Number of Deaths	Filing Year							
		.....	2001	2002	2003	2004	2005	2006	.....
2000-	.....	.....	.....	.....	.....	.....	.....	.....	.....
2000	3,024	.....	599	347	139	69	50	41	.....
2001	3,042	.....	1,025	602	349	140	69	50	.....
2002	3,060	.....	436	1,031	606	351	141	69	.....
2003	3,048	.....	111	434	1,027	604	350	140	.....
2004	3,036	.....	43	111	432	1,023	601	348	.....
2005	3,023	.....	33	43	110	430	1,019	599	.....
2005+	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....
All Years	NA	.....	3,022	3,034	3,035	3,029	3,018	3,003	.....

Notes: The "Number of Deaths" shown for each row represents Nicholson's forecast of mesothelioma deaths for each year. The column totals at the bottom represent the total number of filings allocated to each filing year among persons who Nicholson forecasts will die of mesothelioma. Allocations are made over the entire range of years, but are truncated here because of space.

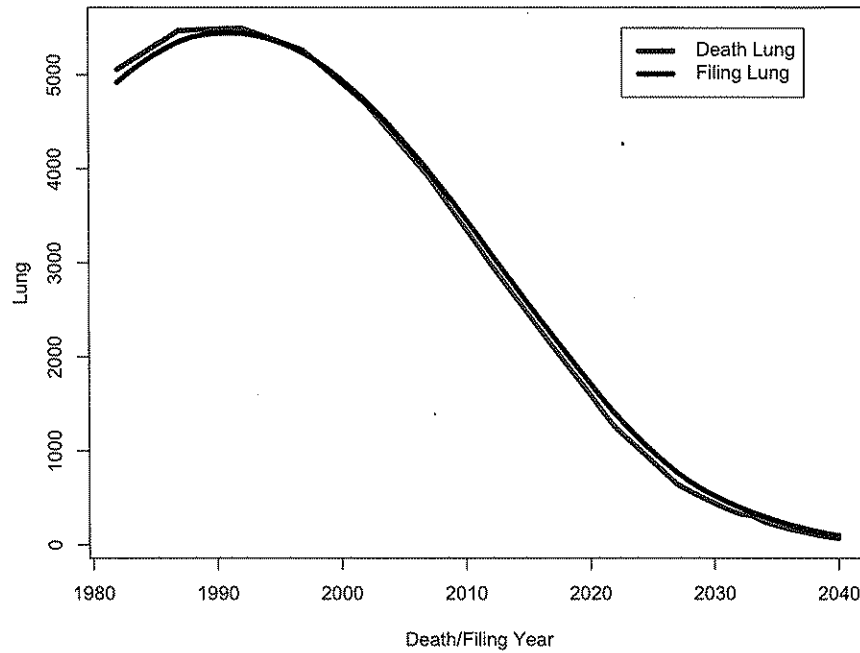
Figures 4, 5 and 6 show the results of these calculation across all forecast years and for all three cancers. Each Figure shows two lines: Nicholson's forecast count of annual deaths, in red, and

the counts claims filed in each year, as I just described, in blue. The Figures show almost identical distributions of annual deaths and claims (assuming that all deaths result in claims), a result that we expected because of the correspondence and symmetry in the distribution of filings around year of death. When we adjust the Nicholson forecasts of annual deaths to become the years when these deaths would result in filings (which is Dr. Cantor's issue), we see virtually the same counts for both in each year. Propensities to sue and the resulting forecasts of future claims will be the almost identical whether they are based on using Nicholson's original counts of cancer deaths in the denominator of the calculation or are based counts of filings in each year.

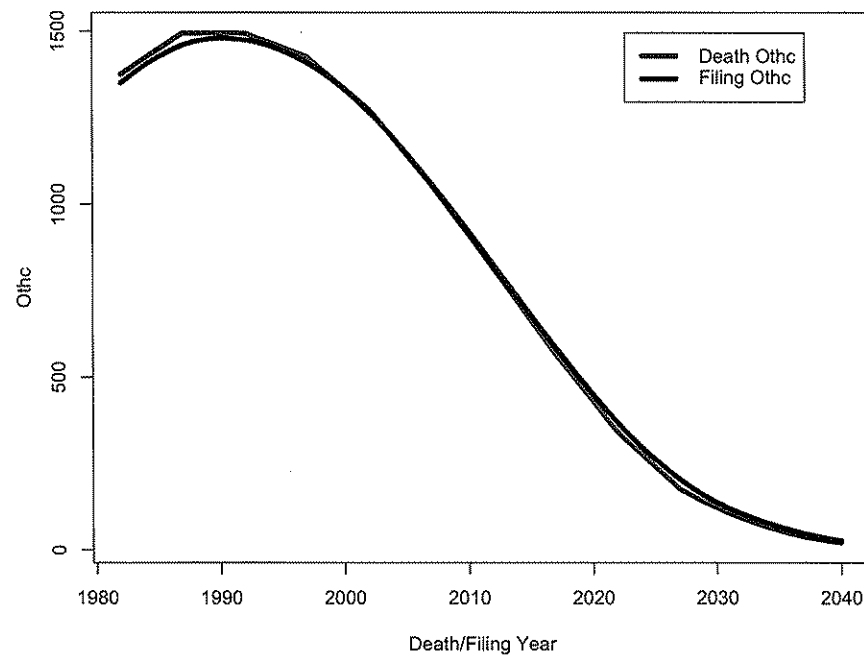
Figure 4: The Filing-Year / Death-Year Distinction
Makes No Difference for Nicholson Mesothelioma Projections



**Figure 5: The Filing-Year / Death-Year Distinction
Makes No Difference for Nicholson Lung Cancer Projections**



**Figure 6: The Filing-Year / Death-Year Distinction
Makes No Difference for Nicholson Other Cancer Projections**



3.3. Recalculating LAS forecasts

I compare my forecasts of T&N liabilities using these two alternative denominators: (1) Nicholson's deaths and (2) forecast annual filings derived from Nicholson's deaths and the comparison of filing and death year in the T&N data. Using the results of the calculations illustrated in Table 4, I recalculated propensities to sue and forecast future claims using the curves for expected timing of cancer filings rather than Nicholson's original curves. As Table 5 shows, this produced forecasts virtually identical to those of my expert report, based on Nicholson's epidemiological forecasts. If I had addressed Dr. Cantor's concern about death-years and filing years by using counts of filings in both the numerator and denominator, my forecast number of future claims would have been 4 percent greater than those of my Expert Report.

Table 5: Forecast Future Claims Are Similar Using Either Nicholson's Death Year or Filing Years Based on Nicholson and T&N Data

Variation	Model	Disease				Total
		Meso	Lung	Othc	Nonm	
Death Year	No-Increase	27,850	26,304	9,027	643,598	706,779
	Increasing	37,339	36,951	14,918	999,232	1,088,440
Filing Year	No-Increase	28,839	27,324	9,292	666,791	732,246
	Increasing	38,717	38,463	15,395	1,037,390	1,129,965

This adjustment to Nicholson's forecasts is straightforward. It uses the actual dates of death in T&N's database. It uses T&N's data on filing dates for 99.7 percent of the T&N cases and for another 0.1 percent of claims where T&N filing dates were missing it uses the dates when claims were filed against Flexitallic or Ferodo, two companies that were also owned by Federal Mogul and were, like T&N, members of the CCR (Dr. Cantor used similar methods to impute filing dates obtaining actual or reasonable imputations of filing dates for 99.9 percent of all T&N claims, Exhibit 4, p. 12.) The analysis uses Nicholson's cancer forecasts and distributions of the time between death and filing among T&N cancer claimants. Unlike Dr. Cantor's method it does not require moving some claims into or out of the calibration period used to calculate T&N's historic propensities to sue or the need to forecast future claims once in order to obtain another forecast of future claims. And unlike Dr. Cantor's method, these unbiased adjustments make little difference in the overall forecasts of liability. The equivalency of forecasts using the original or adjusted Nicholson curves demonstrates that, at best, all of Dr. Cantor's efforts to cope with death year are a complicated and unnecessary excursion.

3.4. Dr. Cantor's Analysis Introduces Biases

Although the death year-filing year issue raised by Dr. Cantor should make no difference in forecasting future asbestos liabilities, her attempts to deal with this issue create differences. Dr. Cantor could have made forecasts with equivalent numerator-denominator terms either by transforming annual counts of deaths in the denominator into counts of filings or by transforming annual counts of filings in the numerator into counts of deaths (although the latter step results in circularity, as I discuss below). If the transformation processes were unbiased, forecasts should be similar either way.

Dr. Cantor uses a series of imputations and assumptions to change her numerator, changing T&N's counts of filings per year into imputed counts of deaths per year. The resulting forecasts of future claims are much lower than forecasts obtained by transforming the denominator, as I

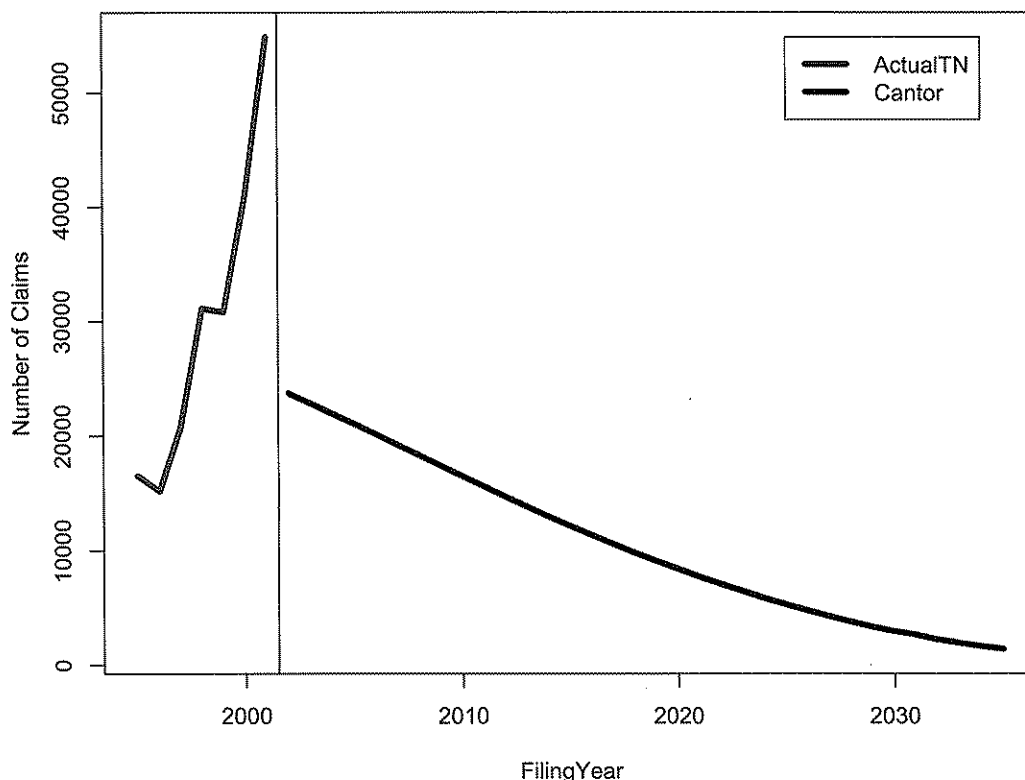
presented above. And significantly, her forecasts are strikingly discontinuous with and far lower than the number of claims actually compensated by T&N. Table 6 and Figure 7 show these sharp contrasts between Dr. Cantor's forecast of future compensable claims (Cantor, Exhibit 26. p. 39) and T&N's historic filings of compensated claims through 2001 (after subtracting non-compensable claims based again on T&N's actual history).

Table 6: Compensable Claims, by Filing Year and Disease

Class Of Claims	Filing Year	Disease				Total
		Meso	Lung	Othc	Nonm	
Actual TN	1996	354	710	298	13,793	15,155
Actual TN	1997	728	1,089	377	18,542	20,736
Actual TN	1998	829	1,204	568	28,538	31,139
Actual TN	1999	827	1,091	416	28,481	30,815
Actual TN	2000	1,140	1,743	547	37,392	40,822
Actual TN	2001	1,068	1,412	606	51,772	54,858
Nav Fcst	2002	662	742	281	22,021	23,706
Nav Fcst	2003	646	710	268	21,231	22,856
Nav Fcst	2004	627	678	256	20,408	21,970
Nav Fcst	2005	608	647	243	19,575	21,073
Nav Fcst	2006	587	615	231	18,726	20,159
Nav Fcst	2007	565	584	218	17,868	19,236
Nav Fcst	2008	542	553	207	17,018	18,320
Nav Fcst	2009	519	522	195	16,160	17,396
Nav Fcst	2010	496	492	183	15,305	16,476
Nav Fcst	2011	472	463	172	14,470	15,576
Nav Fcst	2012	449	434	161	13,647	14,691
Nav Fcst	2013	426	407	150	12,842	13,825
Nav Fcst	2014	403	379	140	12,050	12,972
Nav Fcst	2015	380	353	130	11,284	12,147

Notes: Actual T&N compensable claims based on T&N's historical percentage of claims paid. Cantor forecast taken directly from Cantor Supplemental Expert Report, Exhibit 26. Predictions there were made through 2054, but are truncated here because of space. Year 2001 claims are annualized.

Figure 7: Dr. Cantor's Compensable Claims Forecast Shows a Remarkable Discontinuity from T&N's Own Recent History



Source: T&N database and Cantor Supplemental Expert Report, Exhibit 26.

Notes: Actual T&N compensable claims based on T&N's historical percentage of claims paid. Cantor forecast taken directly from Cantor report, Exhibit 26.

Dr. Cantor forecasts this abrupt change in the course of T&N's claims history because she uses a series of flawed assumptions and analytic steps in her attempts to address the filing year-death year issue.

3.4.1. Problems with the imputation of death year

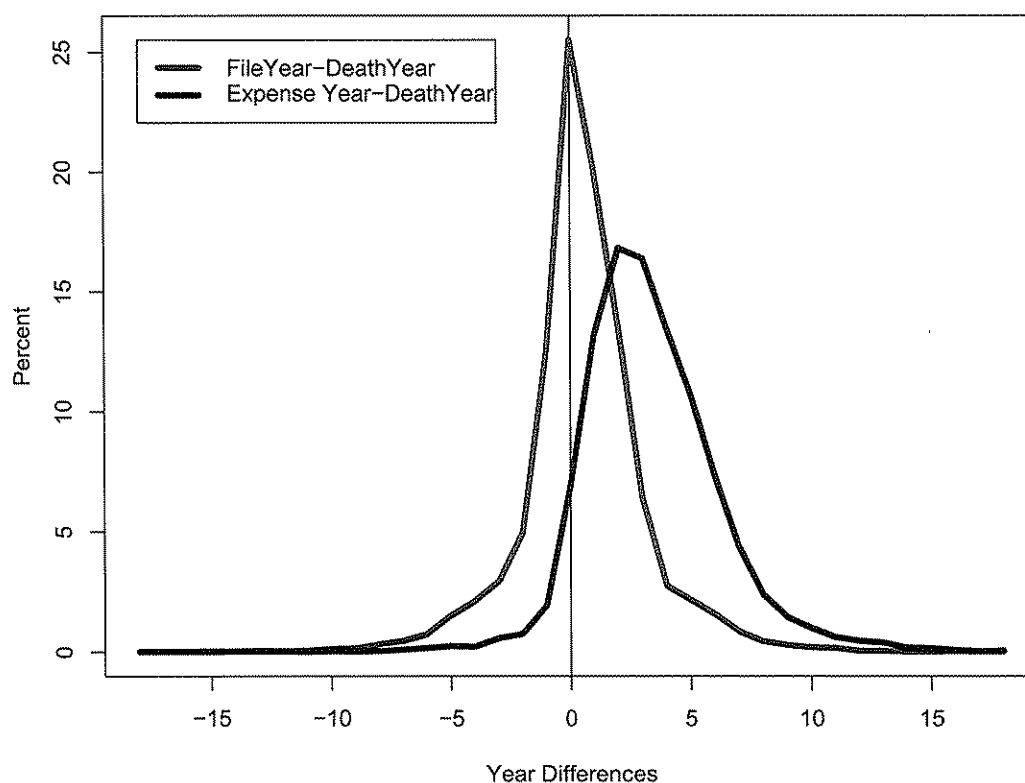
In trying to correct for what she sees as a problem, Dr. Cantor undertakes an exercise in false precision. She attempts to derive a death year for every cancer claimant, which requires her to impute a death year for 28 percent of T&N cancer claimants for whom she has no death year data in either the T&N or Manville Trust databases. Beyond these imputation problems, she further excludes many more claimants that she needed to include in order to properly implement her death-year methodology.

Dr. Cantor derives dates of death for 72 percent of T&N cancer claimants either from T&N's own data (58.5 percent) or from Manville Trust data for T&N claims matched to that database (13.1 percent; Exhibit 28, p. 41). Dr. Cantor has to estimate death years for the remaining 28 percent of T&N cancer claimants and she bases those estimates on biased and unsound assumptions.

First, for 7 percent of T&N cancer claimants who she cannot match to Manville data, Dr. Cantor imputes death year using a method that begins similarly to the method that I described above in

adjusting the Nicholson death years to filing years (Table 3, and Figures 4 to 6 above). She bases this adjustment on the filing year for each of claimants adjusted by a “lag” that she calculates between filing year and death year. If Dr. Cantor stayed with this, she would have an appropriate method, the same that I used in adjusting the Nicholson death years. But then her analysis goes awry. For claims where the T&N data do not provide a death year (as is frequently the case) her “lag” analysis uses T&N “expense year” instead, assuming that the year when the company recorded an expense payment to a claimant is an appropriate proxy for date of death. There is simply no justification for this assumption—that a claimant’s year of death can be estimated by the year that T&N makes an accounting entry. Moreover Dr. Cantor’s assumption is biased. For T&N claims that had data on both death year and expense year, we compared death year and expense year and found that expense year was almost always years later than the claimant’s year of death (Figure 8). In contrast to T&N’s filing year data, which provides a close and unbiased estimate of death year, T&N’s expense year is an unacceptably biased proxy for missing death year, usually occurring many years later than death year among cases for which we have data.

**Figure 8: Dr. Cantor’s Proxy for Missing Death Year Is Biased:
Expense Years Occur Much Later than Death Year (Cancer Claims)**



A large portion of the claims in Dr. Cantor’s lag analysis use T&N’s expense years to impute year of death. Because Dr. Cantor uses this biased over-estimate of the time from filing to death for many or most of the claims in her analysis, she obtains a biased estimate of the lag between filing and death years, incorrectly assuming that deaths occur years later than is true.

Dr. Cantor’s use of the results of her “lag” analysis then compounds her error. Dr. Cantor calculates the median “lag” between filing and death years (actual and imputed), the fiftieth percentile case that lies in the middle of the distribution. Since she has imputed overly long lags

for many or most of the claims in her analysis, the median will be biased upward. She then uses this single, biased median as an estimate of the timing between filing and death for all of the claims for which she imputes death year. By overestimating the time to death, Dr. Cantor pushes compensable cancer claims into the future and outside of her calibration period so that these actual T&N claims are ignored in her forecasts of future claims.

3.4.2. Dr. Cantor's downward bias from failure to count deaths of claimants who have already filed

Dr. Cantor's second flawed assumption is even more extreme and has a profound effect on her forecast. She assumes that 21 percent of T&N's cancer claimants have not yet died, thereby excluding one in five T&N cancer claims from her calculations of "compensability rates." She makes this assumption solely because there were no data on date of death for these claims in either the Manville Trust or T&N databases. After matching cancer claims that had missing dates of death in the T&N data to claims to data for those same claims in the Manville database, Dr. Cantor "inferred that if no death year was recorded in Manville, it was likely that the claimant had not yet died" (p. 40). Since Dr. Cantor's calculations are based on T&N claimants who have died within her 1998-2001 calibration period, her approach would exclude the 21 percent of cancer T&N claimants who she assumes had not yet died.

Contrary to Dr. Cantor's vague "understanding that Manville data is routinely updated for current information on claimants," neither Manville nor T&N monitors claims on a real time basis and claimants' survivors have no obligation to report death information to either defendant. Dr. Cantor has arbitrarily turned incompleteness in the Manville and T&N databases into an assumption that sharply reduces her estimate of T&N's asbestos liability. For all other variables important to her analyses, she undertakes elaborate steps to impute values for missing data. Here, she does not. As I described in Section 3.4.1 above, for another seven percent of T&N cancer claims that lack death dates Dr. Cantor attempted to impute such dates based on her lag analysis. Although her lag analysis was flawed and biased, she would have included at least some of these 21 percent of cancer claimants in her base for forecasting future claims if she had applied the lag analysis to their claims. Instead Dr. Cantor used a data limitation, the absence of information, to exclude them all.

3.4.3. Downward bias from failure to count deaths of future claimants

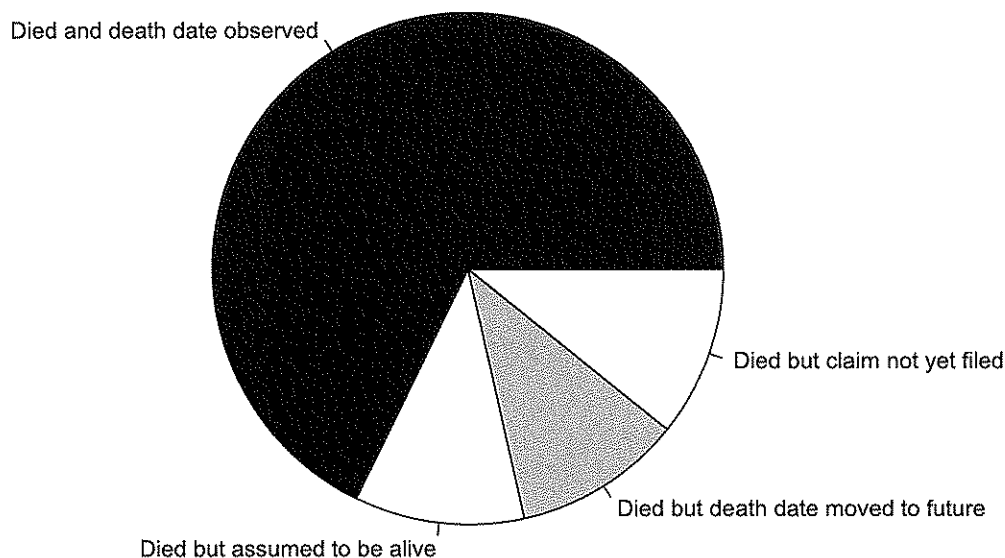
Dr. Cantor completely ignores another large set of deaths that should be included in her calculations: deaths that occurred within her 1998-2001 calibration period among claimants who would file sometime after the October 1, 2001 bankruptcy petition date. Because Dr. Cantor bases her forecasts on the time when T&N cancer claimants die, not on when they file claims, she cannot appropriately ignore deaths that have already occurred among future T&N claimants. As we have seen, most T&N cancer claims are filed in years after the asbestos victim has died (Table 3) so that we must expect that many claims would be filed after October 1, 2001 based on cancer deaths before that date. Omission of these claims results in a severe underestimate of future liabilities.

The need to count deaths among persons who have not yet filed claims creates a dilemma for Dr. Cantor's method. She cannot simply ignore these future claims, as she has done, because then her forecasts are incomplete and downwardly biased by excluding a group of claimants (those who died between 1998 and 2001 but for whom claims will not be filed until after September 2001) that she should have included if she were to truly make a forecast of compensable claims based on death years. The problem can be solved only by forecasting the number of claims that will be filed after October 1, 2001 among persons who have already died and then including those persons in the base used to calculate future propensities to sue. In other words, future claims can be forecast using Dr. Cantor's method only by making a prior forecast of future claims. The

forecasting process is circular. Dr. Cantor tries to avoid this problem by ignoring it, by forecasting that there will be no future claims filed against T&N among persons who have already died--a forecast of zero claims. This is the most unreasonable forecast of all.

Figure 9 summarizes the three sources of biases to Dr. Cantor's forecasts that lead to her improper and biased exclusions of compensable cancer claimants who died during her 1998-2001 calibration period and who have already or would in the future file claims against T&N. Dr. Cantor's exclusion of any one of these three groups of claimants would make her forecasts incorrect and too low. Dr. Cantor excludes all three groups, resulting in unreliable and extremely biased forecasts of T&N's future claims and liability for those claims.

Figure 9: Dr. Cantor Biases Her Death-Year Forecasts by Improperly Excluding Three Groups of Claims During Calibration Period



Notes: Identifies four groups of claimants who die during the calibration period. The percentage who die and are observed in the period (blue) is taken from Table 2--this is the only group of claimants counted by Dr. Cantor. The relative sizes of the remaining three groups are unknown.

3.5. Dr. Cantor's Adjustments are Unnecessary

Dr. Cantor need not have faced these problems of circular forecasting--imputing dates of death for the 28 percent of T&N cancer claims that lack data, estimating the number of current claims that will have future deaths, or estimating the number of future T&N claims that will occur for people who have already died (which she does not estimate). Because her purported death year-filing year difference is not a problem (and not a difference), Dr. Cantor could have obtained unbiased estimates of propensities to sue just by dividing T&N's actual cancer claim filings by Nicholson's forecast cancer deaths, as I have done. Or if she wanted to avoid the semantic problem of having "claims" in the numerator and "deaths" in the denominator, she could have easily distributed the Nicholson forecasts of cancer deaths so that they became estimates of cancer filings. She could then have calculated propensities to sue by dividing T&N's actual claims by estimates of when

cancer deaths will result in claims, based on Nicholson's forecasts of deaths and T&N's experience of the timing of claims, i.e. when asbestos-related cancer deaths have historically resulted in claims against T&N.

3.6. Summary

Dr. Cantor's forecasting methods are designed to correct a problem that is not in fact a problem. Her solution forces her into a forecasting approach that is a circular dead end. She can properly forecast T&N's future claims only after having made another, previous forecast of future T&N claims for persons who died before the bankruptcy date.

Dr. Cantor implements her methods in an incomplete and biased manner. She uses inappropriate data and assumptions to impute death years when unknown, creating biased underestimates of past and likely future rates of claiming against T&N. She confounds this problem by making a biased substitution of her estimate of the number of cancer victims who died within her forecast calibration period for the actual number of cancer claimants in that period. She not only excludes from her calculation thousands of cancer victims who have already filed claims against T&N but who have not yet died (or she assumes have not yet died), but she then fails to add the numbers of deaths that have already occurred among persons who will file in the future. If she is attempting to count deaths in the calibration period, she must, but fails to, make both adjustments: not only excluding persons who have claimed but will die later but also including persons who have already died but whose claims will be brought by later by survivors. By excluding the first group of actual claims without including the second group of future claims, Dr. Cantor severely biases and underestimates T&N's future cancer claims.

I have taken a more direct approach to dealing with her concern: adjusting the Nicholson time series to correspond to filing year by a simple method that relies on T&N's experiences of the time lags between filing year and death year. As I have explained in previous testimony, with appropriate and unbiased adjustments Dr. Cantor's purported problem makes no real difference in predictions.

4. Dr. Cantor's Estimated Settlement Averages

Prior to 2001, T&N was a member of the Center for Claims Resolution (CCR), a defendants' consortium, which entered into settlements on behalf of its members. CCR reached settlements with plaintiffs and then billed T&N and other CCR members who were responsible for the settlements. Often T&N was billed for settlements that had been made one or more years earlier, reflecting either CCR's time to process and bill its members (usually short delays) or terms of group settlements under CCR's Strategic Settlement Program that allowed CCR to pay settlement amounts incrementally over time. T&N's claims database captures this distinction in two different date fields: "settlement date" the date when CCR actually reached a settlement with a plaintiff's law firm and "expense date" when T&N sent payment to CCR for settlements made in that or an earlier year.

The amounts that T&N agreed to pay in settlement at any point time are captured by T&N's settlements dates, the dates when settlement was reached with the plaintiff's law firm and when T&N's evaluation of a claim and its obligation to pay were both fixed. In contrast, T&N's expense date is not the date that it settled the claim, rather it is the date when it paid a contractual obligation that had been established through settlement on the date of settlement. To understand the amounts of T&N's settlements at any point in time and to understand trends over time in T&N's settlement amounts we must look to the settlement date.

In every year T&N paid settlements that had been made in several different years, both settlements made in the current year and settlements that had been reached in earlier years but were not previously billed or paid. For example, during 2001 T&N paid 170 mesothelioma settlements that had been made in 2001, 132 made in 2000, 29 made in 1999, 38 in 1998 and 5 in still earlier years. To calculate T&N's historic settlement averages for each disease it is important to understand the patterns in settlement amounts both by settlement year and by expense (paid) year.

For her calculation of T&N's average settlements in each year, Dr. Cantor uses T&N's payment averages for each expense year rather than the average amounts of settlements in the year that T&N reached those settlements (Cantor, pp. 16 and 17). Calculations among 2001 mesotheliomas show why Dr. Cantor was wrong and the significance of the error. During 2001, T&N agreed to settle and then paid 170 mesothelioma claims an average of \$159,434 (the first entry in Table 7).² Dr. Cantor does not report or use the amounts of T&N's actual settlements in 2001 as her calculation of T&N's 2001 settlement average for mesothelioma, but instead she adds another 204 settlements that T&N had reached in earlier years, claims that were settled for far less. Adding these 204 earlier settlements to the settlements that T&N actually reached in 2001, Dr. Cantor then reports T&N's 2001 mesothelioma settlement average as \$102,361 an amount that is only 64 percent of the average for mesothelioma settlements that T&N actually made in that year. By mixing earlier, low value settlements into the far higher settlements that T&N made in 2001, Dr. Cantor obscures the sharply increasing trends in its settlements and understates the higher level of T&N's 2001 settlements.

2. T&N's database indicates that it agreed to settle another 55 mesothelioma claims during 2001, with an average of \$59,733 for those 55 claims, but it never made any payments on those 55 claims. It is not clear whether or not these 55 cases were really settled. T&N's average mesothelioma settlement in 2001 is \$138,939 if the 55 cases are also treated as settlements.

Table 7: Trends in T&N Mesothelioma Settlements

Year Settled	Year Claim Expensed (Paid)						Average by Settlement Year
	2001	2000	1999	1998	1997	Not Paid	
2001	\$159,434					\$59,733	\$135,063
2000	82,533	87,050				(*)	85,939
1999	35,630	59,307	62,802			(*)	61,245
1998	37,554	83,310	61,705	44,164		(*)	50,765
1997	(*)	(*)	(*)	55,384	49,476	(*)	50,510
Average by Expense Year	\$102,361	\$82,027	\$60,570	\$43,520	\$41,332		

Notes: (*) indicates 10 or fewer settlements; blanks reflect no applicable settlements.

The table shows averages for settlement years from 1997 through 2001. Settlements in earlier years were included in calculating the averages by expense years even though those settlements are not shown. Averages by settlement year are computed without restriction to filing year in order to correspond with Dr. Cantor's methods. In my Expert Report, I reported averages for filings between 1992 and 2001.

Dr. Cantor similarly obscures the substantial increase in T&N's 2001 settlements for lung cancer (Table 8). In 2001 T&N settled and paid 143 lung cancer claims for an average amount of \$21,874, an amount that is 50 percent greater than its settlements made during 2000. But again by adding the lower values of 459 other lung cancer claims that T&N had settled previously but paid in 2001, Dr. Cantor incorrectly denies the actual recent increases in T&N's lung cancer settlements and reports that T&N settled lung cancer claims for \$13,065 during 2001, an amount that is only 60 percent of the actual average settlements in that year.

Table 8: Trends in T&N Lung Cancer Settlements

Year Settled	Year Claim Expensed (Paid)						Average by Settlement Year
	2001	2000	1999	1998	1997	Not Paid	
2001	\$21,874					\$23,352	\$22,151
2000	13,219	14,564				(*)	14,240
1999	8,590	12,756	12,442			(*)	11,980
1998	13,427	13,286	9,339	13,197			12,640
1997		10,356	16,032	15,570	12,998		13,537
Average by Expense Year	\$13,065	\$13,758	\$11,683	\$13,231	\$12,908		

Notes: See Notes to Table 7.

Because she erroneously calculates trends in T&N's "settlement amounts" by looking to claims paid in each expense year, Dr. Cantor concludes that "with the exception of mesothelioma, there is essentially no evidence that claim values escalated in the more recent years before the Federal-Mogul filing for bankruptcy" (p. 17). She reaches this conclusion solely because she based her calculations of T&N's settlement averages on the expense dates in T&N's database, confounding T&N's actual settlements during a year with its payment of old settlements made for lower amounts in prior years. If Dr. Cantor had calculated T&N's annual settlement averages properly, she would have seen the sharp increase in T&N's lung cancer settlements between 2000 and 2001 (50 percent increase), as well as for mesothelioma, and presumably would have forecast a

continuing increase in T&N's lung cancer settlements, like she had forecast for mesothelioma claims. The actual 50 percent increase in T&N lung cancer settlements in 2001 is even greater than the mesothelioma increases that Dr. Cantor had observed (based on her expense year trends) that caused her to forecast continuing increases in mesothelioma settlements. Moreover, if Dr. Cantor had correctly used settlement dates to calculate trends in annual mesothelioma settlements, she would have seen the greater increase in mesothelioma settlement values and would presumably have increased her assumption for annual future increases in mesothelioma above the 18.3 percent drawn from her analysis based on expense years.

Whatever conclusions Dr. Cantor might have drawn from correct analyses of settlements, her reported conclusions about the levels of recent cancer settlements by T&N do not accurately state the full amount of those settlements nor the actual increases in those amounts. As a result of her flawed analysis and failure to address the changing circumstances of T&N's asbestos litigation environment, Dr. Cantor forecasts implausibly low settlement values for T&N's pending and future claimants. T&N had paid an average of \$160,000 to resolve mesothelioma claims that it settled in 2001 (\$135,000 when unpaid 2001 settlements are included), but Dr. Cantor assumes that T&N would have paid only \$68,866 on average to resolve pending mesothelioma claims and only \$81,502 to resolve mesothelioma claims filed in 2002, in both cases less than half of the amount the company had actually paid for its 2001 settlements. Dr. Cantor forecasts that for three or four years after its petition date T&N would pay less to settle mesothelioma claims than it already had paid in settlements reached in 2001 before bankruptcy: Only five years later would mesothelioma settlements equal the amounts that T&N had already paid in 2001. Her forecasts of future lung cancer settlements are even more unreasonable. Dr. Cantor forecasts that after 2001 T&N would never again pay more than 60 percent of the amount had it paid in 2001 to settle lung cancers either for pending or future claimants.

Dr. Cantor does not address the reasons for the increases that she observed or should have observed, such as the changes in T&N's litigation position after leaving CCR, the pressure created by bankruptcies of other, major asbestos defendants, the impact of Tweedale's unfavorable expose of T&N's asbestos activities, and other matters discussed in my Expert Report. She does not mention the reasons explained by T&N's lawyers for low settlements among nonmalignant and other cancer claims in 2001, when the company cherry-picked cases to settle, clearing out past CCR claims that had relatively little liability exposure against T&N. Dr. Cantor's forecasts certainly do not reflect the expectations stated by T&N's lawyers that settlements for all types of diseases, including nonmalignant and other cancer claims, would have increased appreciably in future years. Because Dr. Cantor does not take into account the real world of T&N's asbestos liabilities, her forecasts assume future levels of payment that simply could not be achieved by the company. Forecasts based on these implausible values cannot provide reasonable estimates of the company's future asbestos liabilities.

5. Additional Comments on Dr. Cantor's Supplemental Report

The past two sections discuss the most significant problems with Dr. Cantor's forecasts. Both because her forecasts greatly undercount T&N claimants who have died from asbestos-related cancers during her calibration period and also because she greatly under-estimates the amounts that T&N would have to pay to settle asbestos claims after 2001, Dr. Cantor's forecasts of T&N's liabilities for asbestos bodily are biased and far too low.

Dr. Cantor's Supplemental Report includes other errors and unsupported assertions which may come up during an estimation hearing. In this section I briefly comment on some of her statements going sequentially through Dr. Cantor's report.

To give structure to my comments, I have chosen to go through the report section by section or line by line, indicating where I believe the arguments are not supported by the research or are false. The text is copied from Dr. Cantor's report in blue italics; my comments are in a standard font.

Page 3

"Finally, my analysis revealed that there were substantial changes in the historical treatment of claim types and values .. in 2001."

Dr. Cantor does not discuss the reasons for these changes or their significance. After leaving CCR in January 2001, T&N addressed its asbestos claims as an individual defendant with complete control over the management and settlement policies for those claims, but without the significant strategic and operational advantages of CCR membership. Most immediately, because of courts' fast-track treatment of mesothelioma claims, T&N faced imminent trials of many mesothelioma claims with T&N now stripped of the protections against trials that CCR had provided. In 2001 T&N still faced huge obligations to pay claims that CCR had settled on its behalf in earlier years, but T&N attempted to conserve its depleting assets.

T&N pursued several objectives during 2001:

- minimize its overall payments, which fell by 50 percent (annualized) from prior years even with payment of CCR settlements reached in earlier years;
- weed-out claims with low or questionable values, offering law firms low value group settlements for nonmalignant claims and dismissing other claims (usually without prejudice);
- avoid trials of high values mesothelioma claims and other cancer claims.

Some of T&N's resolutions in 2001 reflected long term changes: mesothelioma and lung cancer would have continued to be resolved for amounts greater than T&N's resolutions within CCR and would have continued to rise as T&N faced growing trial pressures. Some changes cannot be regarded as permanent. Nonmalignant settlement values in 2001 were artificially low due to T&N's strategy of weeding out relatively weak claims that had been filed against it when it was still in CCR. Settlement values for both nonmalignant and other cancer claims would have increased after 2002 for the reasons discussed in my Expert Report and also because the artificial suppression of values during 2001 would have lapsed.

Page 8

Dr. Cantor derived her own epidemiological forecast of the mesothelioma incidence. She claims her *"analysis builds on the approach and data published in 1982 by William J. Nicholson, George Perkel and Irving Selikoff."*

Dr. Cantor provides neither an adequate description of the derivation of her epidemiological

model nor any evidence of its accuracy. She cites Nicholson et. al. but does not use the forecasts produced by Nicholson and his colleagues. The Nicholson work is the only peer-reviewed and published epidemiological forecast of the incidence of asbestos-related disease to which she refers, is widely recognized as the seminal work in the area, and its forecasts have been impressively confirmed by data on the incidence of mesothelioma over a twenty year period. Instead, Dr. Cantor provides no confirmation of her epidemiological model and no evidence that her forecasts accurately predict the incidence of asbestos related cancers. The use of Dr. Cantor's epidemiological model decreases her mesothelioma forecast of T&N's asbestos liabilities from levels that would have been provided by the "KPMG" model she uses for lung cancers and other cancers.

Pages 16-17

"Exhibit 9 shows the claims counts by expense year" (p. 16).

Exhibit 9 is a table of number of claims paid in each expense year, not by settlement year as the table's first column heading states.

Page 17

Dr. Cantor simply speculates without any supporting information when she states: *"The relatively higher mesothelioma value in 2001 as compared to previous years might be a result of the average being computed over a smaller base."*

T&N settled and paid 170 mesothelioma claims in a nine month period of 2001, and reached settlements for another 55 mesothelioma claims that were not paid by the time of the bankruptcy petition.

Pages 18-19

"It is also instructive to examine T&N's claim values after the CCR disbanded and when it settled claims against it on its own, rather than with the purported benefits of CCR membership. Exhibit 11 displays the mean claim values by disease for the last six months prior to T&N's bankruptcy after the disbanding of the CCR in February 2001 and the mean claim values for the same months in the prior year when the CCR still functioned."

Dr. Cantor's discussion and results (Exhibit 11) do not in fact present a comparison of its settlements within CCR to the mean values of T&N's settlements "after the CCR disbanded and when it settled claims against it on its own." Exhibit 11 represents payment amounts paid in each "expense year" and include both payments for settlements made in the stated period and earlier settlement whose payments were deferred. In fact most of the claims paid by T&N in 2001 after leaving CCR were for settlements that were negotiated by CCR before its demise. A proper comparison would require Dr. Cantor to present amounts only for those claims actually settled in each of the two periods. As it is, the table provides no information for the issue that Dr. Cantor discusses.

CCR's "purported" benefits that I discussed in my Expert Report were widely recognized and enumerated by CCR itself.

Page 26

"No estimate of incidence is made for asbestosis. Following the method used in the Feb. 2004 Peterson Memorandum and elsewhere, I used information from the NCI T&N Claims Database to relate asbestosis claims to malignant claims. My method is based on the ratio of compensable nonmalignant claims to compensable malignant claims. To estimate the ratio, I used the weighted average ratio for the period 1998-2001, which was 12.9 to 1. I did not escalate this rate for the future claims in the base case calculations."

Dr. Cantor does not use my method for forecasting asbestosis claims, which calculates the ratio of nonmalignant to cancer filings during a calibration period. Dr. Cantor calculates a ratio of "compensable" claims for each type. She does not show the specifics of her calculation, but her method has two likely sources of error. First, she will get higher or lower estimates of the ratio of nonmalignant to cancer claims depending upon T&N's and CCR's litigation strategies for her calibration period. If CCR and T&N concentrate on resolving cancer claims, then the ratio would be lower. If they concentrate on resolving nonmalignant claims, the ratio will be higher. Second, additional specific error comes from Dr. Cantor's use of "expense year" rather than "settlement year." It is unlikely that the rates of deferral and then payment of deferred claims will be the same between cancer and nonmalignant claims, so that her calculations will be further confounded by CCR's decisions about such matters.

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"In my opinion, there are a number of reasons for assuming that the number of compensable asbestosis claims, and their ratio to compensable malignant claims, will decline in future years. First, increasingly strict federal regulation has greatly reduced the level of occupational exposure to asbestos over the past three decades. This process began in May 1971 with an OSHA permissible exposure limit ("PEL") of 12 fibers per cubic centimeter (f/cc) averaged over an eight-hour workday. This was followed with PEL of 5 fibers/cc averaged over an 8-hour workday in December 1971, and progressively lowered in subsequent regulations to a current standard of 0.1 fibers/cc."

Epidemiologists have stated that the development of asbestosis requires a higher level of exposure than workers will experience under these standards; hence, as we get further out from 1971, the number of asbestosis cases can logically be expected to decline."

Dr. Cantor is not an epidemiologist nor a medical expert so she has no independent basis for her stated opinion. She gives no indication that she has conducted or has the expertise to conduct a systematic examination of medical and epidemiological research and conclusions about how asbestos exposures are related to probabilities of manifesting asbestosis. Rather, she cites two medical reports both authored by physicians who routinely testify for defendants in asbestos litigation, which may or may not be representative of broader medical judgments.

Moreover, her opinions do not follow from her references to data on exposure or the opinions of these defense doctors, because she ignores (1) the actual dates of asbestos exposures among asbestos plaintiffs, (2) the long latencies for asbestosis, and (3) the difference between the incidence and prevalence of that disease. First, most asbestos claimants were occupationally exposed to asbestos for many years. Even today, the exposures of most plaintiffs predate 1971 and they will continue to predate 1971 for many years in the future, based on the slow annual increases in year of first exposure reported among asbestos plaintiffs. So both today and for many years in the future, asbestosis will continue to be claimed by plaintiffs who were exposed to asbestos both before and after 1971. Second, a wide range of epidemiological studies of exposed workers have found long latencies (the length of time from exposure to a discernible probability of manifesting a disease) with risk of the disease increasing most from twenty years after

exposure to thirty or forty years after exposure. After those latency periods, risks of asbestosis remain. So even if most asbestosis claims were to arise from pre-1971 exposures, the latency period for such exposures would continue to result in new occurrences for years into the future. Third, Dr. Cantor's discussion fails to recognize epidemiologists' distinction between incidence, new occurrences of a disease, and prevalence, the number of persons in a population who have a disease either newly occurring or having first occurred in the past. For asbestos-related cancers, epidemiologists address the incidence of the disease: survival rates are so short that medical research counts new occurrences of those diseases. In contrast, asbestosis and pleural disease are progressive and insidious. Victims may have nonmalignant asbestos diseases for many years before they are first diagnosed and typically live for many years after they are first diagnosed. So even if the incidences of asbestosis and pleural disease peak now or in the future, for many more years into the future there will be millions of exposed workers with asbestosis or pleural disease who can claim and receive compensation in US courts.

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"Another reason to expect a decline in asbestosis claims for T&N in particular is the fact that most of its claims experience occurred within the CCR. In that context, the efficient and non-adversarial nature of settlements may have made it economically advantageous for plaintiffs' firms to include in their CCR filings more questionable asbestosis claims than they might have pursued under a pure tort system."

Dr. Cantor speculates about the nature of filings against members of the CCR: "may have made it economically advantageous ... to include ... more questionable claims." She provides no support for this speculation. Indeed, in its Strategic Settlement Program that CCR adopted after its Georgine class action failed in 1997, CCR was able to impose qualification requirements for nonmalignant claims that were more demanding than what plaintiffs would have to meet to maintain tort causes of action. Finally, Dr. Cantor's comments ignore the fact that T&N received far more nonmalignant claims after leaving CCR than it had as a CCR member.

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"There is also evidence consistent with the conclusion that filings, of which non-malignant claims are a very high percentage, have decreased for particular companies in the last couple of years, and generally at the national level. Data from the Manville trust, for example, illustrates a dramatic reduction in non-malignant claim filings since the second quarter of 2002 as shown in Exhibit 16."

Dr. Cantor's discussion of asbestos litigation since 2003 is incomplete. The Manville Trust did indeed see a drop in claims between 2003 and 2004 after its new and stricter Trust Distribution Procedures (TDP) were adopted (the new TDP imposes claim qualification requirements almost identical to those in the proposed reorganization plan for Federal Mogul). The Manville Trust recognized that this pattern in part reflected the earlier filings by claimants who wanted to avoid the stricter qualification requirements, which drove up 2003 filings to over 100,000 with many of these claims that would have otherwise filed in 2004. Such patterns of accelerated filings have been seen before in asbestos litigation. Manville's filings remain significant, averaging about 60,000 per year over 2003 and 2004 and now increasing again in 2005.

Moreover, as the Manville Trust and others note, slowed filings since 2003 are caused by the shadow of possible federal asbestos litigation that would end asbestos litigation and create a national settlement fund. Since 2003 when the Senate Judiciary Committee began considering this legislation, defendants and insurers have greatly reduced the number of cases that they will settle, because legislation would relieve them of obligations to compensate plaintiffs. Claim

filings have slowed because asbestos victims and plaintiffs' lawyers do not know how, if at all, victims would be compensated. There is no point for asbestos victims to undertake law suits if their claims would be paid by a national fund. There is even less reason for law firms to invest heavily in new law suits given such uncertainties. Filings of nonmalignant claims have dropped the most for two reasons: the pressure to file law suits in order to avoid statutes of limitations is less significant for victims of nonmalignant disease than for cancer victims because of the insidious nature of asbestosis and pleural disease; second, in the face of uncertainties of possible legislation, plaintiffs' law firms lessened their efforts to identify and recruit victims of nonmalignant disease. If and when the proposed legislation fails, claim filings will likely rebound with filings both of claims that are now being withheld and from newly diagnosed future victims.

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"I note that there are a number of recent actions at the state level that are likely to affect both the number and settlement values of pending and future claims and thus be a source of further stability or reduction in the values. Attachment D summarizes examples of these recent state actions."

In my October 15, 2004 Expert Report for the Owens Corning estimation hearing I addressed the effects of a tort reform variation designed to prevent compensation for the less-severely injured nonmalignant claimants. For that analysis I made the aggressive assumption that 60 percent of the nonmalignant claims would get zero value and that this would apply to the 60 percent of nonmalignant claims that previously received the lowest values. The nonmalignant claimants who continue to receive compensation would be the claimants in the top 40 percent of historic resolution values among nonmalignant claimants. I also assumed that a consequent attorney behavioral change would occur: without the lesser-valued nonmalignant claims, attorneys would devote more money and effort to the cancer claims, so resolution values for cancers would increase by 10 percent.

I applied this sensitivity analysis to T&N's past claims experience in order to estimate possible effects of T&N's liability of a nation-wide limitation on which nonmalignant claims could be compensated. This analysis requires us to differentiate among T&N's settled nonmalignant claims based on where each settlement fell along the percentile distribution of all settled claims, so we look to our earlier forecast described in my Supplemental Report that used T&N's historic settlements as the basis for forecasting future values (Table 4, p. 8 of Peterson Supplemental Report). For the many reasons discussed in all three of my reports, T&N's future settlement values will exceed the actual amounts of its settlements during 2000 and 2001; I use these values solely because they conveniently support the present analysis. Table 9 shows the average costs to T&N in resolving claims for each disease, both as described in the analysis of the Supplemental Report and with the adjustments discussed here that might result from national legislation limiting compensation to nonmalignant claimants.

Table 9: Changes to Resolution Amounts if Ohio Legislation Expands Nation-Wide

Disease	Average \$Resolution	Net Change	Adjusted \$Resolution
Meso	\$85,102	+10.0%	\$93,612
Lung	13,738	+10.0%	15,112
Othc	5,872	+10.0%	6,459
Nonm	2,206	-14.4%	1,889

Note: Nonmalignant resolution averages decrease because 60 percent of nonmalignant claimants who historically received the lowest settlement values would now receive no payment. This results in a reduction of 14.4 percent in the average resolution amount for nonmalignant claims.

To examine the possible effects of such legislation, we then apply these new resolution amounts to the forecast from my Supplemental Report and compare total liability with and without the forecast effects of such national legislation. Results of this comparison are shown in Table 10. Using these adjusted values, T&N's total liability would be reduced by 1.5 percent. This suggests that even if legislation changes were made denying compensation to most nonmalignant claims in every state, T&N's overall liability would not be significantly changed.

Table 10: The Present Value of Pending and Future Claims Against T&N

Tort System Status	Claims	Disease				Total
		Meso	Lung	Othc	Nonm	
No-Reform	Pending	\$474	\$130	\$26	\$721	\$1,352
	Future	4,324	753	144	4,503	9,724
	All Claims	\$4,798	\$883	\$170	\$5,224	\$11,076
Reform	Pending	\$521	\$143	\$29	\$617	\$1,310
	Future	4,756	828	158	3,856	9,599
	All Claims	\$5,277	\$971	\$187	\$4,473	\$10,909

Note: Changes in the net present value of pending and future claims are obtained by multiplying the amounts in Table 24 of my November 2004 Expert report (reproduced here as the "No-Reform" entries) by the net changes shown in Table 9.

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"My analysis of average settlement values makes no adjustments for the influence of punitive damages."

This is appropriate. T&N as rarely suffered a punitive damage verdict. It's asbestos trial counsel could identify only one verdict which was reached in 2001, so recently that it could have had little if any effect on T&N's historic settlement values. A single punitive damage verdict will have little affect on a defendant, like T&N, with a history of hundreds of thousands of resolved claims.

The increases in T&N's future settlement values that I include in my forecast have nothing to do with punitive damages. T&N's settlements would continue increasing because of plaintiffs' concentration on the company as a now-target defendant and the extensive documentation of

T&N's troublesome history in dealing with workers' risks from asbestos. These will increase T&N's compensatory verdicts and settlements even where punitive damages are unavailable to plaintiffs. If T&N has now begun to face exposure to punitive damages, as it has not in the past, its indemnity payments could increase by more than the limited increases that I forecast. The increase that I forecast will occur whether or not T&N suffers punitive damage judgments.

Dr. Cantor briefly describes her correlation between T&N's average settlements and data on punitive damages as reported in Mealey's Litigation Report as "indicat(ing) that my liability estimate likely overstates T&N's asbestos liability." Her analysis makes no such indication. First, Mealey's has no means to systematically identify all trials. Its trial reports are demonstratively incomplete. CCR's compilation of trials among its members (which are complete because CCR manages such trials) shows many trials that were not included in Mealey's. More fundamentally, simple correlation analysis cannot demonstrate the type of causation that Dr. Cantor asserts. The analysis shows simply that two different numbers are both going up or both going down. We can derive similar correlations between the increasing T&N settlement averages and the population of the United States. Based on simple correlations, there is no more reason to believe that punitive damage verdicts against other asbestos defendants had caused an increase in T&N's average settlements than there is to believe that the increasing population has caused increases in T&N settlements.

6. Rule 26 Disclosures and Signature

DATA CONSIDERED: In reaching the opinions and conclusions set forth in this Report, I have considered, in addition to the data considered in my original November 2004 Expert Report and my April 2005 Supplemental Report and my knowledge of the asbestos litigation developed over the past 20 years, the items of data explicitly identified in this report, the reports, articles and documents specifically identified in the report, publicly available sources of information concerning inflation rates, publicly available documents about T&N, the claims databases referenced in the report, financial statements for other asbestos defendants such as General Electric and Union Carbide and discount rates provided to me by L. Tersigni, Consulting.

EXHIBITS: The exhibits which summarize my opinions are included in the graphics and tables in the report and in the appendices to the report.

QUALIFICATIONS: My qualifications to perform this analysis and provide expert testimony are set forth in my C.V., a copy of which is attached as Exhibit 1 to my November 2004 report.

PUBLICATIONS: Any publications I have authored within the past ten years are set forth in my C.V.

COMPENSATION: My compensation for services rendered in this case is set forth in the fee applications Legal Analysis Systems files on a regular basis with the Bankruptcy Court. At present, my hourly rate is \$600.

PRIOR TESTIMONY: A listing of all cases in which I have testified as an expert at either trial or deposition within the past four years was attached as Exhibit 2 to my November 2004 expert report. In addition, since November 2004 I have testified by deposition in this matter, in the Owens Corning Bankruptcy proceedings and in the Special Electric bankruptcy proceedings and at trial in the Owens Corning Bankruptcy.

I reserve the right to modify this report as new information becomes available between now and the time of trial. I anticipate that I will review the expert witness reports of opposing expert(s) and offer my opinions about their analyses and conclusions in rebuttal testimony.

/s/ Mark A. Peterson

Mark A. Peterson, J.D., Ph.D.
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